REMARKS

The Abstract has been amended such that it now appears by itself on a separate page. In should be noted that the text of the current Abstract was taken from that appearing on the 1st and 2nd pages of the corresponding International Patent Application Publication No. WO 2005/055605.

The claims have been amended to more clearly define the invention as disclosed in the written description. In particular, claims 3, 4, 6 and 8 haave been cancelled, while claims 1, 19, 21 and 22 been amended to include the limitations of claims 3 and 4, and claim 5 has been amended to include the limitations of original claim 1 and cancelled claims 6 and 8. In addition, claims 7, 9-15 and 17 have each been made dependent on claim 5. Further, the claims have been amended for clarity.

The Examiner has rejected claims 1-8, 11, 14-16 and 18-20 under 35 U.S.C. 102(e) as being anticipated by U.S. Patent 6,731,811 to Rose. The Examiner has further rejected claims 9, 10, 12 and 13 under 35 U.S.C. 103(a) as being unpatentable over Rose in view of U.S. Patent 5,742,343 to Kaskell et al. In addition, the Examiner has rejected claims 17 and 21-25 under 35 U.S.C. 103(a) as being unpatentable over Rose in view of U.S. patent 7,274,661 to Harrell et al.

Claim 1 now claims:

"A method for providing heterogeneous layered video support, comprising the acts of:

constructing signaling information defining how at least two layers (BS, ES) are to be combined at a decoder; and

transmitting the signaling information along with the at least two layers (BS, ES) in a transport stream to the decoder,

wherein said signaling information is constructed as a plurality of parameter lists,

and wherein each of said plurality of parameter lists define a unique quality of service (QOS) of said transport stream."

The Rose patent discloses a scalable predictive coding method and apparatus.

As noted in MPEP §2131, it is well-founded that "A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987). Further, "The identical invention must be shown in as complete detail as is contained in the ... claim." *Richardson v. Suzuki Motor Co.*, 868 F.2d 1226, 1236, 9 USPQ2d 1913, 1920 (Fed. Cir. 1989).

Claim 1 includes the limitation "wherein each of said plurality of parameter lists define a unique quality of service (QOS) of said transport stream."

The Examiner indicates that Rose discloses this limitation "the QoS is met while the visual quality of the image is improved as shown in col. 3, lines 33-39 and col. 8, lines 43-46."

Applicants submit that the Examiner is mistaken. In particular, Rose states, at col. 3, lines 33-39:

> "Therefore, a need exists for a scalable predictive coding system and method that exploits the information available to the enhancement layer to improve quality without causing undesired conflicts as outlined above. The present invention satisfies those needs, as well as others, and overcomes the deficiencies of previously developed predictive coding systems and methods.";

and at col. 8, lines 43-46:

> "When the receiver experiences an improvement in channel conditions, it attempts to decode higher enhancement bits and improve the quality of the reconstruction."

Applicants submit that it should be clear that Rose is indicating that its method results in improved quality, and that when the receiver experiences an improvement in channel conditions, it attempts to improve the quality of reconstruction. However, there is no disclosure or suggestion in Rose that each parameter list defines a unique quality oof servide of the transport stream.

Applicants therefore believe that claim 1 is patentable over Rose. Further, since claim 19 contains similar limitations, claim 19 should also be patentable over Rose. In addition, claims 2 and 18 depend from claim 1, while claim 20 depends from claim 19, and further limit claims 1 and 19, respectively. As such, claims 2, 18 and 20 should also be patentable over Rose.

Claim 5 now claims:

"A method for providing heterogeneous layered video support, comprising the acts of:

constructing signaling information defining how at least two layers (BS, ES) are to be combined at a decoder; and

transmitting the signaling information along with the at least two layers (BS, ES) in a transport stream to the decoder,

wherein said signaling information is constructed as a parameter list,

wherein said parameter list is comprised of a plurality of parameter values,

and wherein one of said parameter values defines, for a corresponding layer, a DC compensation."

With regard to the limitation "wherein one of said parameter values defines, for a corresponding layer, a DC compensation." (in original claim 8), the Examiner states "As per claims 3 and 5-8, most of the limitations of this claim have been noted in the above rejection of claim 1. In addition, Rose further discloses constructing signaling information as a plurality of parameter lists (See col. 5, lines 25-37)."

Applicants submit that the Examiner is mistaken. In particular, Rose, at col. 5, lines 25-37 states:

> "The combining rule depends on any or all of, but not limited to, the following parameters: the compression parameters 110 of the base layer (such as quantization step and threshold, and the quantized baselayer residual 112, $r_b(n)$, (see FIG. 3)), and the statistical parameters 114 of the time evolution of the frames (such as inter-frame correlation coefficients and variance). The statistical parameters may be either estimated off-line from training data, or estimated on-line by an adaptive estimator which tracks variation in the signal statistics based on either the original signal (in which case the parameters need to be

transmitted to the decoder) or based on reconstructed signals which are available to the receiver."

Applicants submit that it should be apparent from the above that Rose makes no mention of DC compensation either in the above section, or anywhere else.

As such, Applicants believe that claim 5 is patentable over Rose. Applicants further submit that since claims 7, 11, 14 and 15 depend from and further limit claim 5, these claims should also be patentable over Rose.

Claim 9 includes the limitation "wherein at least two of said parameter values define, for a corresponding layer, horizontal FIR coefficients for to a filtering operation required to combine the corresponding layer with a reference layer", while claim 10 include the limitation "wherein at least two of said parameter values define, for a corresponding layer, vertical FIR coefficients for a filtering operation required to combine the corresponding layer with a reference layer".

Claim 12 includes the limitation "wherein a ratio of two of said parameter values defines, for a corresponding layer, a horizontal scaling factor", while claim 13 includes the limitation "wherein a ratio of two of said parameter values defines, for a corresponding layer, a vertical scaling factor".

The Haskell et al. patent discloses a scalable encoding and decoding of high-resolution progressive video.

The Examiner has indicated that "Rose is silent about defining horizontal and vertical FIR coefficients for a filtering operation as specified" and that "Haskell provides a method for providing heterogeneous layered video including defining horizontal and vertical FIR coefficients for a filtering operation (See Haskell col. 5, lines 1-7, col. 7, lines 63-67, col. 8, lines 1-11).

With regard to claims 9 and 10, Applicants submit that the Examiner is mistaken. In particular, while Haskell et al. discloses the use of an finite-impulse-response (FIR) temporal filter, Haskell et al. is silent with regard to any coefficients needed for such a filter, and that such coefficients should be included in signal information sent with the at least two layer signals. Further, Haskell et al. does not supply that which is missing from Rose as noted above.

With regard to claims 12 and 13, Applicants would like to note that these claims are related to horizontal and vertical scaling factors and not to FIR filters. As such, Applicants believe that the Examiner's rejection thereof based on Rose/Haskell et al. is erroneous.

Claim 17 claims "The method ~~of~~ as claimed in Claim ~~6~~5, wherein one of said parameters defines whether a corresponding layer contains one of an interlaced or progressive video stream."

The Harrell et al. patent discloses a flow control method for quality streaming of audio/video/media over packet networks.

The Examiner has conceded that "Rose is silent about providing heterogeneous layered video wherein one of the parameters defines whether a corresponding layer contains one of an interlaced or progressive stream", and then adds "Harrell provides a method for providing layered video support wherein one of the parameters defines whether a corresponding layer contains one of an interlaced or progressive stream (See Harrell col. 5, lines 1-7 and col. 6, lines 2-16)."

Applicants believe that the Examiner is mistaken. In particular, Harrell et al. does not distinguish between interlaced or progressive video streams, and whether the signal information should include such a definition. In fact, Harrell et al. does not even mention the term "interlaced", and only mentions the term "progressive" at col. 15, line 7 as in "Progressive Fine Granularity Scalable (PFGS) coding". Hence, Applicants submit that the combination of Rose and Harrell et al. does not render claim 17 obvious.

Claims 21-25 relate to the transmission of the two layers and the signaling information over Internet protocol, where the signaling informaiton is transmitted either in-band or out-of-band.

The Examiner has indicated that "Harrell provides a method for providing layered video support including transmitting the layers (BS ES) over Internet Protocol using real-time transport protocol while the transmission session is performed either in-band of out-of-band (See Harrell col. 4, lines 23-37)."

Applicants submit that the Examiner is mistaken. While Harrell et al. arguably discloses transmission of video information over Internet protocol, there is no disclosure or suggestion of the signaling information being transmitted either in-band or out-of-band. Further, Applicants submit that Harrell et al. does not supply that which is missing from Rose.

In view of the above, Applicants believe that the subject invention, as claimed, is neither anticipated nor rendered obvious by the prior art, either individually or collectively, and as such, is patentable thereover.

Applicants believe that this application, containing claims 1, 2, 5, 7 and 9-25, is now in condition for allowance and such action is respectfully requested.

Respectfully submitted,

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